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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,825	11/13/2003	Mark D. Monica	IPE-1	8830
28581	7590	01/05/2010		
DUANE MORRIS LLP - Princeton			EXAMINER	
PO BOX 5203			PATEL, TAJASH D	
PRINCETON, NJ 08543-5203			ART UNIT	PAPER NUMBER
			3765	
			MAIL DATE	DELIVERY MODE
			01/05/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/712,825

Applicant(s)

MONICA, MARK D.

Examiner

Tejash D. Patel

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 29, 35, 42-45 and 164 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 1, 3-5, 10, 12-20, 22-23, 29-32, 34-47, 49-50, 52-53, 67-74, 76-77, 81-89, 161-166, 172-174

Continuation of Disposition of Claims: Claims rejected are 1, 3-5, 10, 12-20, 22-23, 30-32, 34, 36-41, 46-47, 49-50, 52-53, 67-74, 76-77, 81-89, 161-163, 165-166, 172-174

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 10, 12, 17-20, 22, 30-32, 34, 36, 38-41, 46-47 49-50, 52-53, 67-73, 76-77, 81-82, 85, 161-163, 165, 166, and 174 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchel (US 2,545,039) in view of LaPorta (US 4,547,905) and Rector et al. (US 5,701,611). Mitchel discloses a protective pad apparatus for protecting the chest, back and shoulder that includes shoulder shell assembly made of plurality of protectors (14,26) having identical first and second discrete shell halves (A, A') defined by body members (B, B') and shock absorbing arches (D, D'), col. 3, lines 65-70 and as shown in figures 1 and 5. Further, the first and second arches are connected by a plate (K), col. 5, lines 5-6 that is moveable relative to one another by fasteners (31) positioned adjacent to opposing edges as shown in figure 2. Furthermore, a cushioning pad (B) is provided on an inner surface of the first and second arches, col. 4, lines 12-31 and as shown in figures 1 and 2. The device is secured about the upper torso by a belt strap system as also shown in figures 1 and 2. The protective pad has a raised

embossment (16) thereon as shown in figure 1. However, Mitchel does not show the shoulder assembly having at least one spring and the cushioning pad having a laminated construction.

LaPorta discloses a protective pad apparatus for protecting the chest, back and shoulder that includes shoulder shell assembly having identical first and second discrete shell halves (14) with arch members/spring element (40) being fastened thereto that adds strength and rigidity to an inner portion thereof being made of suitable material, col. 3, lines 24-27.

Rector et al. (hereinafter Rector) a protective pad apparatus for protecting the chest, back and shoulder that includes shoulder shell assembly having identical first and second discrete shell halves with each of the first and second halves including a impact absorbing laminated cushioning pad made of at least three discrete impact absorbing substrates that includes one of a open cell foam layer/substrate (34), a closed cell foam substrate (36) and a cover defining inner and outer breathable fabric (16), col. 3, lines 1-34 and as shown in figure 5.

It would have been obvious to one skilled in the art at the time the invention was made to provide the protective arches of Mitchel with arch members/spring element made of suitable rigidity attached thereto as taught by LaPorta for additional strength while substituting the cushioning pad with a laminated construction as taught by Rector in order to easily absorb and dissipate force of impact. Additionally, it is obvious to one skilled in the art that the spring of Mitchel when viewed with LaPorta and Rector will swing laterally relative to the movement of the body and it is obvious to provide the spring with a absorbing layers that is coated or secured thereto in order to minimize abrasion to the body.

The specification offers no unexpected results from the outer fabric being able to reflect heat. Therefore, it is obvious to one skilled in the art to recognize that the cover made of breathable fabric of Mitchel when viewed with LaPorta and Rector can substantially reflect heat to a certain degree when exposed to the sun or other external sources of heat.

With regard to claim 3, it is obvious that the outer and inner fabric of Mitchel when viewed with LaPorta and Rector allows air therethrough since the cover is defined of a breathable material.

With regard to claims 4, 22, 36, and 161 it is obvious that the outer fabric of Mitchel when viewed with LaPorta and Rector is capable of functioning as a radiant heat barrier in order to protect the user from sunlight or other manmade/natural sources of heat.

With regard to claim 10, it is obvious that the impact absorbing laminated construction of Mitchel when viewed with LaPorta and Rector can be made of a visco-elastic polymer, reticulated foam and foam beads as an alternative but equivalent means of absorbing force of impact depending on the flexibility, stiffness, etc required for the protective device.

With regard to claims 12, 18, 20, 39, 41, 73, and 163 it would have been obvious to one skilled in the art at the time the invention was made to recognize the inner and outer fabric and substrates of Mitchel when viewed with LaPorta and Rector are made of a textile material that has conventionally colorized finish or dyed color being available when the device was made in order to make the device cost effective based on known textile process and methods.

Furthermore, with regard to claims 52-53, it would have been obvious to one skilled in the art at the time the invention was made substitute the fastener on the movable plate (K) of

Mitchel when viewed with LaPorta and Rector with snaps, hook and loop material, etc since such fastening means is considered equivalent in the art.

With regard to claim 67, it would have been obvious to one skilled in the art at the time the invention was made to provide the belt strap system of Mitchel when viewed with LaPorta and Rector having a padded cushion that minimized abrasion to the body when the device is worn.

3. Claims 5, 23, 37 and 162 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchel when viewed with LaPorta and Rector as applied to claims 1 and 10 above, and further in view of Monica (US 6,321,654) Mitchel discloses the invention as set forth above except for showing the outer fabric layer including an aluminum polyester.

Monica discloses a protective pad having a shell assembly that allows air therethrough as shown in figure 10. Further, the pad can be laminated with an outer fabric layer that reflects heat, col. 4, line 61- col. 7, line 52.

With regard to claims 5, 23, 37 and 162 it is obvious that the outer fabric of Mitchel when viewed with LaPorta and Rector can be made of a material that reflects heat as taught by Monica that is inclusive of aluminum polyester but not limited thereto depending on availability in order to protect the user and keep the body cool.

4. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchel when viewed with LaPorta and Rector as applied to claim 1 above in view of Bainbridge et al (US 6,453,477). Mitchel discloses the invention as set forth above except for showing the cushioning pad including a substrate that is made of foam beads that are fused where the beads contact.

Bainbridge et al. (hereinafter Bainbridge) discloses a cushioning pad (20) including foamed beads (22) that are fused together where the beads contact one another, col. 14, lines 30-67 and as shown in figures 30-32. Also, the pad is detachably secured to an shell assembly (54) by detachable snap fasteners (60) as shown in figure 25.

It would have been obvious to one skilled in the art at the time the invention was made to substitute one of the layers of the cushioning pad of Mitchel when viewed with LaPorta and Rector with a substrate that is made of foam beads that are fused where the beads contact as taught by Bainbridge as an alternative but equivalent means of absorbing force of impact as known in the art. Furthermore, it would have been obvious that impact cushioning material having different absorbing properties can be substituted for the layers of Mitchel as required for a particular application thereof.

5. Claims 74, 81-84, and 86-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchel when viewed with LaPorta and Rector as applied to claims 1, 49, 85 and 86 above, and further in view of Chang (US 5,390,368). Mitchel discloses the invention as set forth above except for showing the protective pad having a plurality of ventilation holes and individual protector panels being replaceable.

Chang discloses a protective pad apparatus for protecting the chest, back and shoulder that includes shoulder shell assembly having identical first and second discrete shell halves with a plurality of ventilation holes as shown in figures 1 and 2. Further, individual protector panels (16,26) are releasably attached to arches (10,20) by hook and loop material, col. 3, lines 5-

With regard to claim 74 and 83, it is obvious to one skilled in the art that the protective pad of Mitchel when viewed with LaPorta and Rector can include a plurality of ventilation holes as taught by Chang in order to keep the body cool when the device is donned.

With regard to claims 81-82, 84 and 86-89, it would have been obvious to one skilled in the art to secure the cushioning pad of Mitchel when viewed with LaPorta and Rector by releasable hook and loop material as taught by Chang so that worn or damaged pads can be easily replaced or different sized protectors can be attached to the protective pad assembly. Further, it is obvious that the hook and loop material of Mitchel when viewed with LaPorta and Rector and Chang can be substituted with snaps, buckles, straps, etc since such fastening means is considered equivalent in the art and the orientation of such fastening means on the protector pad will not effect the end result of protector panels being detachable.

Response to Amendment

7. In light of the interview summary mailed on August 6, 2009 this office action is being made new non-final.

Allowable Subject Matter

8. Claims 29, 35, 42-45, and 164 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tejash Patel whose telephone number is (571) 272-4993. The examiner's supervisor Mr. Gary Welch can be reached at (571) 272-4996. The group fax number is (571) 273-8300

October 30, 2009

/Tejash Patel/
Primary Examiner
AU 3765